



Michigan Department of Natural Resources & Environment
Air Quality Division

State Registration Number

N6874

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number

MI-ROP-N6874-2011

Quantum Composites, Inc.

SRN: N6874

Located at

1310 South Valley Center Drive, Bay City, Bay County, Michigan 48706

Permit Number: MI-ROP-N6874-2011

Staff Report Date: 12-20-2010

This Staff Report is published in accordance with Sections 5506 and 5511 of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Specifically, Rule 214(1) requires that the Michigan Department of Natural Resources and Environment (MDNRE), Air Quality Division (AQD), prepare a report that sets forth the factual basis for the terms and conditions of the Renewable Operating Permit (ROP).

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12/20/2010 STAFF REPORT

Purpose

Major stationary sources of air pollutants, and some non-major sources, are required to obtain and operate in compliance with a ROP pursuant to Title V of the federal Clean Air Act of 1990 and Michigan's Administrative Rules for air pollution control pursuant to Section 5506(1) of Act 451. Sources subject to the ROP program are defined by criteria in Rule 211(1). The ROP is intended to simplify and clarify a stationary source's applicable requirements and compliance with them by consolidating all state and federal air quality requirements into one document.

This report, as required by Rule 214(1), sets forth the applicable requirements and factual basis for the draft permit terms and conditions including citations of the underlying applicable requirements, an explanation of any equivalent requirements included in the draft permit pursuant to Rule 212(5), and any determination made pursuant to Rule 213(6)(a)(ii) regarding requirements that are not applicable to the stationary source.

General Information

Stationary Source Mailing Address:	Quantum Composites Inc. 1310 South Valley Center Drive Bay City, Michigan 48706
Source Registration Number (SRN):	N6874
North American Industry Classification System (NAICS) Code:	326199
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Initial Issuance
Application Number:	201000070
Responsible Official:	Dennis Mehl, Director, Manufacturing (989) 922-3863 ext 107
AQD Contact:	Kathy L. Brewer, EQA (989) 894-6214
Date Permit Application Received:	June 14, 2010
Date Application Was Administratively Complete:	August 3, 2010
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	December 20, 2010
Deadline for Public Comment:	January 19, 2011

Source Description

Quantum Composites, Inc., is an existing sheet molding compound and bulk molding compound manufacturing facility located at 1310 South Valley Center Drive, in Bay City, Michigan. Resinous paste, fillers, and product enhancers are mixed. The paste is transferred to one of the molding compound machines. Reinforcement materials may be added to the paste which is spread between layers of carrier film. Two dust control devices are used for particulate control. Solvents are used for cleaning of equipment.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System in the 2010 submittal.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Volatile Organic Compounds (VOCs)	3.2

See Parts C and D in the draft ROP for summary tables of all processes at the stationary source that are subject to process-specific emission limits or standards.

Regulatory Analysis

The following is a general description and history of the source. Any determinations of regulatory non-applicability for this source are explained below in the Non-Applicable Requirement part of the Staff Report and identified in Part E of the ROP.

The stationary source is located in Bay County, which is currently designated by the U.S. Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR), Part 70, because the potential to emit of any single HAP regulated by the federal Clean Air Act, Section 112, is more than 10 tons per year and/or the potential to emit of all HAPs combined is more than 25 tons per year.

The stationary source is considered a "synthetic minor" source in regards to the Prevention of Significant Deterioration regulations of 40 CFR, PART 52.21 because the stationary source accepted legally enforceable permit conditions limiting the potential to emit of volatile organic compounds to less than 100 tons per year. Operational limits per the requirements of Rule 205 restrict the VOC potential to emit. The restrictions vary among the emission units and include operating hours, material usage, and, styrene content limits.

Styrene monomer limits were set in the permit to satisfy the requirements of Rule 702(a) as well as to set practically enforceable permit restrictions to satisfy the requirements of Rules 205 and 225. The applicant submitted a control cost analysis using the USEPA Air Compliance Advisor (ACA) model as part of the PTI No. 303-00B application. AQD independently ran the USEPA ACA model at maximum expected VOC emissions rates. Both the Quantum and AQD estimates are above the approximate level below which add on controls are considered cost effective based on past AQD permit reviews. Therefore it was concluded that no add-on control would be considered VOC Best Available Control Technology (BACT).

EUSMCI, EUSMCII, EUSMCIII, EUMIXERS, EUBMCMIXER, EUSOLVENT, and, EUPRESS at the stationary source are subject to the Maximum Achievable Control Technology (MACT) Standards for Reinforced Plastics Composites Production promulgated in 40 CFR, Part 63, Subparts A and WWWW. The permit includes a FGMACT portion that specifies the MACT requirements applicable to the facility under Subpart WWWW. The primary requirements of the MACT that apply include maintaining the

facility below 100 ton per year of organic HAP emissions, meeting work practice standards listed in Table 4 of the MACT, and , associated recordkeeping and reporting.

Also as part of the PTI No. 303-00b PTI issuance, an ambient air toxics impact assessment and dispersion modeling was run using emission estimates for certain contaminants. An hourly emission testing limit was set for the source of the largest styrene annual emission rate. Other restrictions were included in the permit to insure compliance with the styrene Secondary Risk Screening Level (SRSL). Specific Toxic Air Contaminants (TAC) emission limits and other restrictions were included if the predicted ambient impacts of the TACs were at or above 75% of the applicable air toxics screening levels. In addition, several resin additives were evaluated for TAC emissions and ambient air impacts. Estimated impacts were very small but not all qualified for the Rule 226(a) exemption from the Rule 225 screening levels. The AQD Toxics Unit evaluated the predicted impacts for several TACs that did not have screening levels. The predicted ambient impacts for TACs evaluated were acceptable. The predicted impacts either met applicable screening levels or were below default Initial Risk Screening Level (ITSL) values. The facility will meet the requirements of Rule 225 provided that the emission limits and other permit restrictions to limit TAC emissions are met.

The monitoring conditions contained in the ROP are necessary to demonstrate compliance with all applicable requirements and are consistent with the "Procedure for Evaluating Periodic Monitoring Submittals."

No emission units are subject to the federal Compliance Assurance Monitoring rule under 40 CFR, Part 64, because all emission units at the stationary source either do not have a control device or those with a control device do not have potential pre-control emissions over the major source thresholds.

Please refer to Parts B, C and D in the draft ROP for detailed regulatory citations for the stationary source. Part A contains regulatory citations for general conditions.

Source-wide Permit to Install (PTI)

Rule 214a requires the issuance of a Source-wide PTI within the ROP for conditions established pursuant to Rule 201. All terms and conditions that were initially established in a PTI are identified with a footnote designation in the integrated ROP/PTI document. PTIs issued after the effective date of ROP No. MI-ROP-N6874-XXXX are identified in Appendix 6 of the ROP.

Equivalent Requirements

This permit does not include any equivalent requirements pursuant to Rule 212(5). Equivalent requirements are enforceable applicable requirements that are equivalent to the applicable requirements contained in the original PTI, a Consent Order/Judgment, and/or the State Implementation Plan.

Non-applicable Requirements

Part E of the draft ROP lists requirements that are not applicable to this source as determined by the AQD, if any were proposed in the application. These determinations are incorporated into the permit shield provision set forth in Part A (General Conditions 26 through 29) of the draft ROP pursuant to Rule 213(6)(a)(ii).

Processes in Application Not Identified in Draft ROP

The following table lists processes that were included in the ROP application as exempt devices under Rule 212(4). These processes are not subject to any process-specific emission limits or standards in any applicable requirement.

Exempt Emission Unit ID	Description of Exempt Emission Unit	ROP Exemption	PTI Permit Exemption
EUERU	2.8 MMBTU/hr Energy Recovery Unit	212(4)(b)	282(b)(i)
EUPROCESSHEAT	0.5 MMBTU/hr Boiler for process heat	212(4)(b)	282(b)(i)
EUCOMFORTHEAT	0.8 MMBTU/hr Boilers for comfort heat	212(4)(b)	282(b)(i)
EUWATERHEATER	0.25 MMBTU/hr Hot water heater	212(4)(b)	282(b)(i)

Draft ROP Terms/Conditions Not Agreed to by Applicant

This permit does not contain any terms and/or conditions that the AQD and the applicant did not agree upon pursuant to Rule 214(2).

Compliance Status

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements as of the effective date of this ROP.

Action taken by the DNRE

The AQD proposes to approve this permit. A final decision on the ROP will not be made until the public and affected states have had an opportunity to comment on the AQD's proposed action and draft permit. In addition, the U.S. Environmental Protection Agency (USEPA) is allowed up to 45 days to review the draft permit and related material. The AQD is not required to accept recommendations that are not based on applicable requirements. The delegated decision maker for the AQD is Mr. Chris Hare, Saginaw Bay District Supervisor. The final determination for ROP approval/disapproval will be based on the contents of the permit application, a judgment that the stationary source will be able to comply with applicable emission limits and other terms and conditions, and resolution of any objections by the USEPA.



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1/24/2011 STAFF REPORT ADDENDUM

Purpose

A Staff Report dated December 20, 2010, was developed in order to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by R 336.1214(1). The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 30-day public comment period as described in R 336.1214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

General Information

Responsible Official:	Dennis Mehl, Director, Manufacturing (989) 922-3863, Ext 107
AQD Contact:	Kathy L. Brewer, EQA (989) 894-6214

Summary of Pertinent Comments

No pertinent comments were received during the 30-day public comment period.

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3/11/2011 STAFF REPORT ADDENDUM

Purpose

A Staff Report dated 12/20/2011, was developed in order to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by R 336.1214(1). The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 45-day EPA comment period as described in R 336.1214(3). In addition, this addendum describes any changes to the proposed ROP resulting from these pertinent comments.

General Information

Responsible Official:	Dennis Mehl, Director, Manufacturing (989) 922-3863, Ext 107
AQD Contact:	Kathy L. Brewer, EQA (989) 894-6214

Summary of Pertinent Comments

No pertinent comments were received during the 45-day EPA comment period.